

ROUTING AND TRANSMITTAL SLIP

Date

4-20-92

TO: (Name, office symbol, room number, building, Agency/Post)

Initials

Date

1.

Ray Aycock

2.

J. Blodgett

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Ray,
Please review and send
it to Travis. I have discussed
this with Travis after the
first plan came back. Tom

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

St Catherine Creek NWR

Phone No.

5041-102

U.S. GPO 1990 - 262-080

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

Sent 4/20/92

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

1. Environment Action Memorandum
2. Compatibility Determination
3. Environmental Assessment
4. Findings of No Significant Impact
5. Section 7 Evaluation
6. Cropland Management Plan

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

1. Environment Action Memorandum

UNITED STATES FISH AND WILDLIFE SERVICE

ENVIRONMENTAL ACTION MEMORANDUM

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of (describe):

Cooperative Cropland Management on the St. Catherine Creek NWR

___ is a categorical exclusion as provided by 516 DM 6 Appendix 1. No further documentation will be made (See instructions on back).

X is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding of No Significant Impact.

___ is found to have special environmental conditions as described in the attached Environmental Assessment. The attached Finding of No Significant Impact will not be final nor any actions taken pending a 30-day period for public review (40 CFR 1501.4(e)(2)).

___ is found to have significant effects, and therefore a "Notice of Intent" will be published in the Federal Register to prepare an Environmental Impact Statement before the project is considered further.

___ is denied because of environmental damage, Service policy, or mandate.

___ is an emergency situation. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other supporting documents:

- Refuge Cooperative Cropland Management Plan
- EA/FONSI
- Section 7 Evaluation
- Compatibility Statement

Regional Director

Date

Initiator **Date**

ARD Date

ARD/Refuges and Wildlife Date

REC DATE

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

2. Compatibility Determination

U.S. FISH AND WILDLIFE SERVICE

COMPATIBILITY DETERMINATION

Cooperative Cropland Management

Station Name: St. Catherine Creek NWR

Establishing and Acquisition Authority:

The St. Catherine Creek National Wildlife Refuge located in Adams and Wilkinson Counties, Mississippi was established under the Authority of the Migratory Bird Conservation Act of 1927 and Emergency Wetland Resources Act of 1986.

Purpose(s) for which established:

For lands acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715-715r, as amended, the purpose of the acquisition is "... for uses as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)

Refuge Objectives:

To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi Flyway.

To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

To provide habitat for a natural diversity of wildlife and plant species.

To provide opportunities for wildlife oriented recreation and environmental education when compatible with other refuge objectives.

Attachment 1: Goals of the National Wildlife Refuge System

Applicable Laws, Regulations, and Policies:

1. Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-178h; 48 Stat. 451).
2. Refuge Trespass Act of June 25, 1948 (18 U.S.C. 41; 62 Stat. 686).
3. National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd, 668ee).

4. Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4).
5. Additional refuge-specific regulations as published.

Description of Use:

Cooperative farming on St. Catherine Creek NWR is the method presently implemented to plant agricultural crops including soybeans, wheat, milo, millet (sp), sunflowers, and corn.

Anticipated Biological Impacts of the Use:

No detrimental impacts are anticipated.

NEPA Compliance (attach Environmental Action Memorandum):

Categorical Exclusion ☐

Environmental Assessment ☐

Environmental Impact Statement ☐

FONSI ☒

Determination (check one):

This use is compatible ☒ This use is not compatible ☐

Stipulations Necessary to Ensure Compatibility:

Non restricted-use chemicals are permitted for application, no Fall till farming, and pest control policy and methods used are described in 7 RM 14.

Justification:

Cooperative farming is compatible with the objectives of the refuge and practiced to produce supplemental food to meet waterfowl objectives, to prevent the invasion of undesirable brush and trees until desirable habitat manipulation can be implemented, to prepare selected areas for the reestablishment of bottomland hardwoods, and to reduce acreage of croplands to a level which is the minimum required to meet waterfowl needs.

Project Leader: _____
Signature/Title/Date

Reviewed By: _____
Signature/Title/Date

Signature/Title/Date

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

3. Environmental Assessment

ENVIRONMENTAL ASSESSMENT OF
Cooperative Cropland Management Program

On
The St. Catherine Creek National Wildlife Refuge

Adams County,
Mississippi

For Further Information, Contact

Refuge Manager
U.S. Fish And Wildlife Service
St. Catherine Creek NWR
P.O. Box 18639
Natchez, MS 39122

Prepared by:

U.S. Department of the Interior
Fish and Wildlife Service
Natchez, Mississippi
December, 1994

I. PURPOSE AND NEED FOR ACTION

Purpose

The purpose of the cropland management program at St. Catherine Creek National Wildlife Refuge is to meet the following objectives:

1. Produce supplemental food to meet waterfowl objectives.
2. Prevent the invasion of undesirable weeds and trees.
3. Prepare selected areas for the reestablishment of bottomland hardwoods.
4. Reduce the cropland acres to a level which is the minimum requirement to meet the needs of waterfowl.

Need

St. Catherine Creek NWR was established in 1990 to preserve wintering habitat for mallard, pintail, blue-winged teal, and wood duck, and production habitat for wood duck to meet the goals of the North American Waterfowl Management Plan. This area in south-west Mississippi was identified as a prime sight along the Mississippi River with the potential to overwinter large numbers of waterfowl depending on food and water availability. Because the refuge is in its initial stages of habitat development, the implementation of a cropland management program significantly enhances food stores for waterfowl in addition to cleared land not in cultivation that has reverted to moist soil plant production areas consisting of wild millets, smartweeds, foxtail, signal grass and sedges.

II. THE CURRENT ACTION AND THE ALTERNATIVES

This section looks at three alternative proposals including the existing program for managing approximately 3,000 acres which have been set aside for a flexible cropland management program.

The three alternatives are:

- Alternative 1.: Cropland Management Agreement (Existing Program)
- Alternative 2.: No Action
- Alternative 3.: Force Account

A. Alternative 1.: Cooperative Cropland Agreement (Existing Program)

Currently, St. Catherine Creek NWR is in its third season of a five year cooperative farming agreement with

one local farmer. This is in accordance with the guidelines identified in the Cropland Management Plan, and the general Service policy outlined in 6 RM 4. Cooperative farming is the method presently implemented to plant crops on the refuge which commenced with the 1992 cropping season. At the end of the five year period in 1996, the farming program will be evaluated to determine whether it meets the refuge objectives for which it was intended. The crop sharing ratio is 75 percent for the cooperator and 25 percent for the refuge. The cooperator provides all labor, equipment, seed, fertilizer, and weed and insect control to produce the crops planted. Crops that are planted include soybeans, wheat, milo, millet (sp), sunflowers, and corn.

B. Alternative 2.: No Action

Under this alternative the cropland management program would be discontinued, and the land left to revert to natural conditions or used for other refuge management directives.

C. Alternative 3.: Force Account Farming

This alternative would alter the current cooperative farming agreement to a cropland management program assumed solely by the refuge including all labor, equipment, seed, and fertilizer (if any), to produce the crops.

III. ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This section discusses the physical environment that would be affected by implementation of the proposed alternatives.

A. Consequences of Cooperative Cropland Management Program

The refuge is currently operating under a cooperative cropland management agreement. Intensive farming practices using hi-tech tilling and restricted use chemical (herbicide) applications have been discontinued. The farm cooperator is also required to leave fifty foot buffer strips between crop fields and ditches to prevent fertilizers and non-restricted insecticides from contaminating/polluting waterways. As a result, soil erosion from wind and backwater flooding has diminished. Leaching of harmful chemicals into adjacent soils and waterways is minimal.

The use of farming as a management tool may directly

reduce the amount of natural wildlife foods available by eliminating weed species of vegetation valuable to wildlife. The gains, however, far outweigh the losses during a time when other refuge management operations are limited by a lack of manpower and equipment.

Endangered species known to occur on the refuge are wintering bald eagles, wood storks, and occasionally migrating peregrine falcons. The potential threat to these species ingesting farm chemicals is negligible as they generally do not occur in the area during chemical application in the spring.

B. Consequences of No Action

The consequence of taking no action at all would result in an area which would be subject to the encroachment of undesirable plant and tree species (i.e. sesbania, cocklebur, button bush, willow and boxelder); those species having little to no value to wildlife.

Natural regeneration of native hardwood species would be very slow due to competition with undesirable species.

Dense vegetation and root mass of weed species would protect top soil from wind and water erosion.

Management for waterfowl use is lost.

C. Consequences of Force Account Farming

St. Catherine Creek NWR is a new refuge operating with a staff of three and limited operating resources. Results of a force account cropland management program would include fewer cropland acres, less waterfowl use acres, poorly managed crop fields due to the lack of experience and equipment, and a reduction in time spent on other habitat management objectives.

IV. CONSULTATION AND COORDINATION WITH OTHERS

The Cropland Management Plan for St. Catherine Creek National Wildlife Refuge was completed and submitted to the Service Regional Office for review and approval. It was found to be consistent with the refuge management goals and objectives, and approved on 4-30-92.

V. DECISION/RATIONALE ON SELECTION OF PREFERRED ALTERNATIVE

The current cooperative cropland management program is a

viable method of habitat protection until other methods can be implemented. As funding for refuge equipment and materials become available, cropland acres will decrease and be used for additional reforestation management and water manipulation strategies. When the cooperative agreement was first initiated, approximately 4,365 acres were divided into 17 cropland units. Since that time those acres have gradually decreased to accommodate hardwood seedling plantings. Maximum cropland now consists of approximately 3,000 acres.

The annual flooding regime also dictates the amount of acreage that can be farmed. The maximum farmable acres are subject to change annually depending on backwater flood conditions and the duration of time they remain wet. Those poorly drained fields and lower lying areas have been some of the first to be taken out of crop production and used for impounding water and creating moist soil production areas for waterfowl and shorebirds.

VI. RATIONALE FOR RECOMMENDATION TO USE A FONSI

Current farm management practices are consistent with refuge management objectives on the St. Catherine Creek National Wildlife Refuge. Therefore, it is the recommendation of the refuge that a **Finding Of No Significant Impact (FONSI)** be filed with the Compatibility Determination of the Cropland Management Program.

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

4. Findings of No Significant Impact

FINDINGS OF NO SIGNIFICANT IMPACT
FOR
COOPERATIVE CROPLAND MANAGEMENT
ON
ST. CATHERINE CREEK NWR

I have determined that the Cooperative Cropland Management Program on the St. Catherine Creek National Wildlife Refuge will not have a significant effect on the human environment within the meaning of Section 102 (2) (c) of the National Environmental Policy Act of 1969. Accordingly, an environmental impact statement will not be prepared.

This determination is based on the following reasons:

1. The cooperative cropland management program is compatible with general Service policy (6 RM 4) governing the farming practices on a National Wildlife Refuge.
2. The cooperative cropland management program is compatible with the purposes for which the St. Catherine Creek National Wildlife Refuge was established.
3. The cooperative cropland management program does not initiate widespread controversy or litigation.
4. There are no conflicts with local, Regional, State, or Federal plans or policies.

Supporting Reference:

1. Cropland Management Plan (attached)
2. Environmental Assessment (attached)
3. Section 7 Endangered Species Evaluation (attached)
4. Compatibility Determination (attached)

Date

Regional Director

Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR



Contents

5. Section 7 Evaluation

SECTION 7 EVALUATION

REGION: 4

LOCATION (ATTACH MAP)

St. Catherine Creek National Wildlife Refuge, Adams County,
Mississippi

LISTED SPECIES OR CRITICAL HABITAT CONSIDERED:

Bald Eagle, Peregrine Falcon, Wood Stork

NAME AND DESCRIPTION OF ACTION:

The cropland management program at St. Catherine Creek NWR is a compatible program with the other refuge management objectives. All farming practices are in accordance with the cropland management plan and are considered to have very little impact on the endangered species mentioned.

OBJECTIVES OF THE CROPLAND MANAGEMENT PROGRAM:

The cooperative farming program was implemented on St. Catherine Creek NWR to produce supplemental food to meet waterfowl objectives, to prevent the invasion of undesirable weeds and trees, to prepare selected areas for the reestablishment of bottomland hardwoods, and to reduce the cropland acres to a level which is the minimum requirement to meet the needs of waterfowl.

EXPLANATION OF IMPACT OF ACTION OF LISTED SPECIES OR CRITICAL HABITAT:

Current program probably has little to no affect on listed species.

RECOMMENDATION TO AVOID ANY IMPACTS:

Gradual reductions of cropland acres enrolled in the farming program reduces risks for endangerment of protected species. Cropland units will be monitored for endangered species use and measures to further regulate farming practices may become necessary.

SECTION 7 EVALUATION

PROJECT LEADER:

Thomas J. Spusa

DATE

1-20-95

COMMENTS:

WILL NOT AFFECT:

X

MAY AFFECT

ENDANGERED SPECIES SUPERVISOR:

DATE

COMMENTS:

WILL NOT AFFECT:

MAY AFFECT

ARD

DATE

COMMENTS:

WILL NOT AFFECT:

MAY AFFECT

ARD-FA:

DATE

COMMENTS:

WILL NOT AFFECT:

MAY AFFECT

REGIONAL DIRECTOR:

DATE

COMMENTS:

WILL NOT AFFECT:

BIOLOGICAL OPINION

**Cropland Management
Decision Document Package
for
ST. CATHERINE CREEK NWR**



Contents

6. Cropland Management Plan

APR 21 1992

<input checked="" type="checkbox"/>	MANAGER	1.0
<input type="checkbox"/>	ASST.	
<input checked="" type="checkbox"/>	ASST.	4/19
<input type="checkbox"/>	CLERK	
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<input type="checkbox"/>	MAINT.	
<input type="checkbox"/>	COOP.	
<input checked="" type="checkbox"/>	FILE	

Cropland Management Plan

For

St. Catherine Creek National Wildlife Refuge

Natchez, Mississippi

1992

Recommended by:

Thomas J. Sprua 4-20-92
Refuge Manager Date

Reviewed by:

Ray Lycock 4-24-92
Wildlife Management Biologist Date

Reviewed by:

Irvin H. McDaniel 4-29-92
Associate Manager Date

Approved by:

David W. Busan 4/20/92
Assistant Regional Director Date

RECEIVED

MAY 04 1992

ST. CATHERINE CREEK
NATIONAL WILDLIFE REFUGE

St. Catherine Creek National Wildlife Refuge
Cropland Management Plan
1992

PURPOSE

This plan is intended to guide refuge cropland management at St. Catherine Creek National Wildlife Refuge through the next five years at which time a reevaluation will be in order.

It is designed to give direction while permitting flexibility in the program. It is aimed at reducing cropland acreage to the minimum required to meet approved waterfowl objectives.

CROPLAND HISTORY

The St. Catherine Creek National Wildlife Refuge was established in January of 1990 with the acquisition of 6,250 acres (tract 12, known as the Anderson Farm). Of this acreage, approximately 4,500 acres had the potential to be planted to crops. The rest of the acreage consisted of cut-over bottomland hardwoods and wooded areas along drainage ditches. The area that was cropped in 1990, by one farmer, was under lease agreement from the previous landowner. Therefore, the Service had no interest in the crop planted. The farmer was only able to plant 1,500 acres of the 4,500 acres available because of the lateness of flooding. This lease between the previous landowner and farmer terminated on December 31, 1990.

In 1991 another 6,950 acres were added to the refuge. Tract 11, known as the Armstrong property, consists of 6,304 acres and tract 14, the McGehee/Burkley property, consists of 219 acres. Crops had not been grown on this area for the past several years. A total of 2,600 acres were enrolled in the Conservation Reserve Program (CRP) and were planted to various species of acorns by the previous landowner. For the Service to purchase this property, the Agriculture Stabilization and Conservation Service (ASCS) and the previous landowner had to terminate their CRP agreement. In order for ASCS to terminate the agreement and discontinue future CRP payments to the previous landowner, the Service had to agree to several items. First, the 2,600 acres planted to acorns, whether the plantings were successful or not, could not be planted to a commodity crop (ie. soybeans) until the 10 year CRP commitment was over. Second, a management plan had to be written by the refuge stating the areas in the CRP agreement would be managed as originally intended, the reestablishment of a hardwood bottomland. Unfortunately, the acorn plantings were not successful, according to a search conducted by District Forester Clyde Stewart. This means that the refuge will be responsible for the replanting of the entire 2,600 acres. Much

of the remaining open area, that was not enrolled in the CRP program, is either too sandy or inaccessible during the planting season. None of the newly acquired areas will be included in the refuge cropland program.

The first year the Service required the services of a cooperative farmer was in 1991. Because of his history, over the past several years, the lease holder with the previous landowner was asked if he would be interested in becoming the refuge's cooperative farmer. The refuge's first cooperative farming agreement was developed for the 1991 cropping season. Consideration had to be made with regards to the flooding of the area to be cropped. During the past several years the backwater flooding of the area, which is now part of the refuge, has remained on the area until late June. This has a major influence on the crop planted and the areas planted.

The cooperative agreement for 1991 stated that the cooperator would be permitted to plant up to 4,500 acres. In reality only 3,053 acres of the 4,500 acres were available to be planted in 1991 due to the lateness of flooding. The only crop planted was soybeans. The refuge took its crop share in services. These services included mowing, disking, entrance road development, beaver dam removal, road grading, and equipment hauling.

1992 - 1996 FARMING PROGRAM

Cooperative farming will be the method used to plant crops on the refuge beginning with the 1992 cropping season. The crop sharing ratio will be 75 percent for the cooperator and 25 percent for the refuge. The cooperator will provide all the labor, equipment, seed, fertilizer, and weed and insect control to produce the crops planted.

Crops to be planted on the refuge will include soybeans, wheat, milo, millet (sp), sunflowers, and corn.

Because of the lateness of planting, caused by backwater flooding, soybeans are the cash crop that can be planted making the farming venture profitable for the cooperator. Soybeans are not the most desirable crop to be left unharvested for the refuge share, therefore, the cooperator will harvest all the soybeans as his share. The cooperator will be required to plant crops for the refuge's share during his planting operation. Crops to be planted for the refuge will include milo, millet (sp), sunflowers, and corn. These crops will be planted in designated fields in conjunction with the waterfowl use areas.

The situation at St. Catherine Creek NWR is different than most

cropland areas on refuges because the actual acres planted will differ from year to year. Due to the topography (swales and ridges) and the flooding situation, the actual acreage planted will not be known until planting for the season is actually completed. Beginning in 1992 a total of 4,365 acres divided into 17 cropland units may be available to be cropped. In reality there will be less than the 4,365 acres planted on a yearly basis for several reasons. First, as the refuge continues to create waterfowl impoundments, the available acreage will decrease. Waterfowl impoundments may be farmed every three to four years as a means of vegetation control. Second, as the refuge gears up for a tree planting program, some of the areas now planted to crops may be planted to trees. Third, due to backwater flooding and the time of year the water recedes, it may be too late in the season to plant a crop on parts of some cropland units. All soybean plantings will cease on July 15th of each year. Plantings after July 15th are tentative and making a crop is questionable. In favorable years all plantings, including soybeans, milo, sunflowers, and corn will be completed before the July 15th cut-off. Millet (sp) will be planted in moist soil conditions from July 15th through August 15th.

Because of not knowing how many acres the cooperator will be able to plant in any given year, the refuge's 25 percent share will also differ. Therefore, the refuge must be somewhat conservative on the total amount of crops planted as the refuge's share.

If the total cropland acreage of 4,365 acres were ever able to be planted, the cooperator's share would be 3,274 acres and the refuge's share would be 1,091 acres. Realistically, the maximum amount of cropland will probably never be planted because of the flooding regime and the change of cropland to other uses. This brings up the situation of how to be able to plan on the refuge's share at the beginning of the planting season. As previously stated, in 1991 only 1,500 acres were planted. In that year, the refuge's share would have been 375 acres (25 percent of 1,500). Therefore, using these figures as the minimum acreage planted, the refuge's share on a yearly basis will be at least 375 acres.

The 375 acres will be planted to milo, sunflowers, millet (sp), and corn. Size of the refuge's plantings will range from 5-20 acres and will be located throughout the 17 cropland units. The refuge's share will be planted at the same time the cooperator is planting his crops. The cooperator will also be required to care for the refuge's share to produce the best possible crop. This would include cultivation, applying needed fertilizer, and controlling weeds and insects with approved chemicals. All the refuge's share will be left in the field. The cooperator may be required to brush-hog the crops to make

them available for waterfowl use.

In years when more than 1,500 acres are planted, the refuge will require additional crops planted and/or take the difference in services performed by the cooperator for the refuge. The cooperator will either plant additional crops to meet the refuge's 25 percent share and/or will be assessed 25 dollars for every additional acre planted to meet the refuge's 25 percent share. Any services provided to the refuge will be related to the cropland program.

The cooperator's cost of providing a service will be figured as close to actual cost of the particular service with no profit involved. Services may include mowing, disking, custom crop planting, etc..

The costs of planting milo, sunflowers, and corn are similar to the costs of planting soybeans. Therefore, these three crops will be planted one acre for each acre owed. Since it costs less to plant millet (sp), millet (sp) will be planted at a rate of 2 acres for each acre owed.

The total acres of cropland will continue to decrease with the management of existing impoundments, the upgrade of existing impoundments, the development of additional impoundments, and the initiation of the hardwood tree planting program. Ultimately, the cropland acres need to be reduced to the point where only the acres required to produce supplemental feed to meet waterfowl objectives are planted. These areas will probably be associated with the high ground or the renovation of waterfowl impoundments. At this point in the life of the refuge, to maximize the number of acres planted will definitely be an asset to the refuge operation. Because of the lack of equipment and personnel, cooperative farming will play an important role in the operation of the refuge for the next five years.

OBJECTIVES

Refuge objectives for cropland management over the next 5 years are stated as follows:

To produce supplemental food to meet waterfowl objectives.

To prevent the invasion of undesirable brush and trees, until desirable habitat manipulations can be implemented.

To prepare selected areas for the re-establishment of bottomland hardwoods.

To reduce acreage of croplands to a level which is the minimum required to meet waterfowl needs.

SOILS

Most of the soils under cultivation could be considered farmed wetland or prior converted wetland. The soils are subject to annual flooding and are saturated in lower areas for long periods. The entire refuge area lies with the Sharkey-Tunica-Newellton soils association. The association is described as being poorly drained and somewhat poorly drained, clayey, non-acid soil.

PESTICIDE USE

Use of pesticides on the refuge is typical for conventional farming in the south. Farming operations are dependent on the use of chemicals to control insects and weeds. This refuge will consider the role of chemical pesticides in pest control programs. As more research and demonstrations of alternate chemical use become available, it will be incorporated into the cropland program. Integrated pest management techniques will be tested and used where applicable.

Pest control policy and methods are described in 7 RM 14 and will be adhered to. No restricted use chemicals will be permitted to be used on the refuge.

ADMINISTRATIVE REQUIREMENTS

The Cooperative Farm Agreement, form 3-1492 and addendum form 3-1492a, will be completed prior to actual farming activities stating crops to be planted and locations.

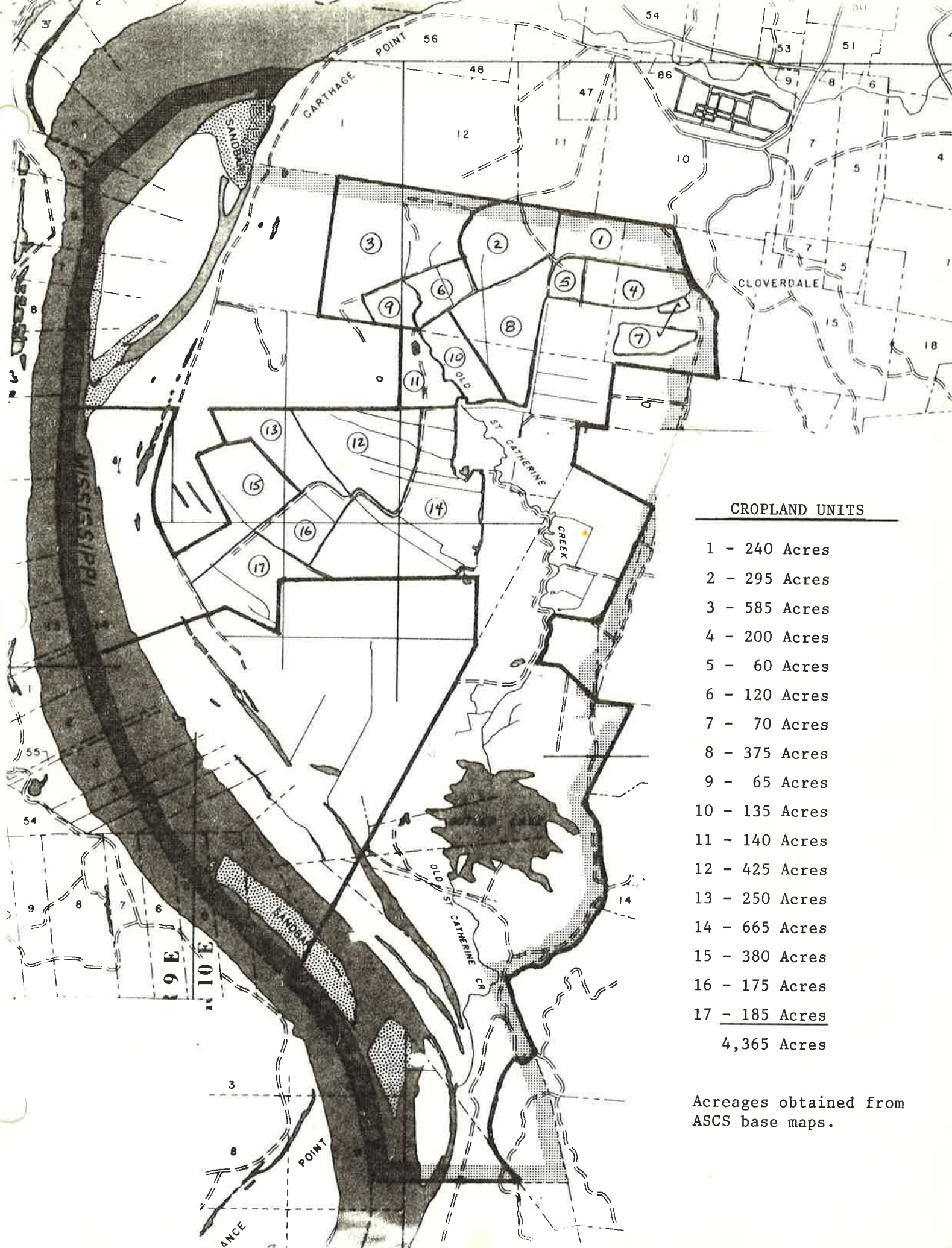
The yearly developed cooperative agreement will contain the specifics for each planting season. A map will be included that shows what refuge crops are to be planted within the 17 cropland units and the number of acres to be planted.

Pesticide Use Proposals and use summaries will be maintained in accordance with 7 RM 14.7 and regional policy documents for procedures and exceptions.

FUTURE MANAGEMENT

This plan should be reviewed annually and is intended to guide the refuge for the next five years. At the end of the five year period, ending in the fall of 1996, a major evaluation of the farm program will be in order. While the plan was written as a guide it was intentionally developed to give flexibility to management. The known variables in developing the plan include the annual unpredictable backwater flooding, the need

for the cooperator to have a viable profit margin, the reduction of cropped areas, the continued development of waterfowl impoundments, the intention to plant various locations to bottomland hardwoods, and the need to plant crops for waterfowl use.



CROPLAND UNITS

- 1 - 240 Acres
- 2 - 295 Acres
- 3 - 585 Acres
- 4 - 200 Acres
- 5 - 60 Acres
- 6 - 120 Acres
- 7 - 70 Acres
- 8 - 375 Acres
- 9 - 65 Acres
- 10 - 135 Acres
- 11 - 140 Acres
- 12 - 425 Acres
- 13 - 250 Acres
- 14 - 665 Acres
- 15 - 380 Acres
- 16 - 175 Acres
- 17 - 185 Acres
- 4,365 Acres

Acreages obtained from
ASCS base maps.